UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/748,008	VAN BRABANT, LUC
	Examiner	**Art Unit**	
	HARRIS C. WANG	2439	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6,7,11-15 and 22-34* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-7, 11-15, 22-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

The Applicant has argued that "Smithson does not disclose "placing the chunks onto the virus scan queue." Instead, Figure 2 of Smithson shows that one on-demand or on-access can request is received in step 10 and then written to the virus scan request queue in step 18. thus, individual scan requests and not chunks of plural scan requests are placed on the virus scan request queue of Smithson (pg. 12 of Remarks)."

While Smithson does teaches individual requests, there is nothing that precludes a plurality of individual requests being placed together (in particular if the requestor has priority). In other words, if the CEO of Figure 3 places multiple on-demand requests then the group of individual requests could be considered a "chunk." Also, the "User" requestor has priority of 6 and can also be considered a "chunk."

As claim 6 does not go into detail regarding the grouping of the chunks, the claim can be broadly interpreted as grouping the individual on-demand requests as taught by Smithson.

The Applicant has also argued that McAfee does not teach "placing the chunks onto the virus scan request queue (pg. 14 of Remarks)." However the Applicant in the same sentence admits "McAfee shows the low-priority queue of on-demand scan requests **(emphasis on plural).** If McAfee shows placing a plurality of on-demand scan

requests onto the scan request queue, McAfee teaches "grouping...and placing the

chunks onto the virus scan request queue."

The Applicant next argues that "In short, in McAfee, individual scan requests and

not chunks of plural scan requests are placed on the queue (pg. 15 of Remarks)." The

Examiner respectfully disagrees citing the previous argument above.

The Applicant argues "it is unreasonable to interpret 'inhibiting the placement of

at least one of the chunks on the virus scan request queue until completion of anti-virus

scanning for the anti-virus scan requests in a prior one of the chunks" as simply not

placing an individual on-demand scan request on the queue of McAfee if the queue is

full (pg. 15)."

The Examiner respectfully disagrees.

Princeton Wordnet defines "inhibit" as: limit, block, or decrease the action or

function of.

If the queue maximum, as explicitly described in McAfee stops accepting scan

requests at 30, limits, or blocks further placement of the scan requests, then McAfee

teaches "inhibiting the placement...on the virus scan request queue until completion of

anti-virus scanning."

Applicant admits "Instead, **so long as the queue is not full (emphasis added)**,

a new on-demand scan request would not be placed on the queue of McAfee. Because

there is at least one scenario where the limitation is covered McAfee may be broadly be

interpreted as "inhibiting the placement...on the virus scan request queue."

The remaining arguments are derived from the above arguments and are

unpersuasive for the same rationale.

Arguments regarding new claims 29-34 are moot in view of new grounds of

rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claims 29-34 rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

The term "substantially equal" in claims 29, 31-32, 34 and the term "about one-

half" in claims 30, 33 are a relative term which renders the claims indefinite. The terms

"substantially equal" and "about one-half" are not defined by the claim, the specification

does not provide a standard for ascertaining the requisite degree, and one of ordinary

skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Smithson.

Regarding Claim 6

Smithson (6802012) teaches a method of operating a plurality of virus checkers for on-

demand anti-virus scanning concurrent with on-access anti-virus scanning, the method

comprising:

Combining on-demand anti-virus scan requests and on-access anti-virus scan

requests in a virus scan request queue *(Fig. 2 is a flow diagram illustrating the allocation of*

a priority level by the anti-virus system. At step 10 a file access request is received from the

operating system file service. At step 12 a check is made to whether the file access request is

the result of an on-demand scan or is a result of normal operation of the computer system,

Column 4, in particular lines 50-55)) ;

Distributing the on-demand anti-virus scan requests and the on-access virus

scan requests from the virus scan request queue to the virus checkers

("The scan controller also operates to select the next pending scan request to be processed

from the pending scan list and pass this information to the scan engine. The scan controller

selects the oldest high priority scan stored within the pending scan list" Column 5, in particular

lines 46-50)

Wherein the on-access anti-virus scan requests are produced in response to

user access to files *(See Figure 2, also "In the case of a normal file access request, the*

computer user associated with the scan request may be the file access request" Abstract)

Wherein the on-demand anti-virus scan requests are produced in response to a

system administrator requesting a scan of files within a specified file system *(The*

originator or the on-demand task will typically be the system administrator, Column 3, in

particular lines 37-41)

Smithson teaches the method of claim 1 which includes grouping the on-demand

anti-virus scan requests into chunks, each of the chunks including multiple ones of the

on-demand anti-virus scan requests and placing the chunks onto the virus scan request

queue. *(Figure 2 of Smithson teaches placing on-demand scan requests into a queue, Figure 3*

shows the "chunks")

Claims are rejected under 35 U.S.C. 102(e) as being anticipated by McAfee

("Groupshield and the Microsoft Virus Scanning API" May 1, 2002).

Regarding Claim 11-13, 15, 22-25, 27-28

McAfee teaches a method of operating a plurality of virus checkers for on-demand anti-virus scanning concurrent with on-access anti-virus scanning, the method comprising:

Combining on-demand anti-virus scan requests and on-access anti-virus scan requests in a virus scan request queue;

Distributing the on-demand anti-virus scan requests and the on-access virus scan requests from the virus scan request queue to the virus checkers *("In virus scanning API 2.0,.. items are submitted to a common information store queue as they are submitted to the information store. Each of these items receives a low priority in the queue, so that these items do not interfere with the scanning of the high-priority items…The priority of the items is dynamically upgraded to high priority if a client attempts to access the item while the item is in the low-priority queue" pg. 4).* The Examiner interprets "client attempts to access the item" as an on-access scan request, and the new unchecked files migrated into the file server ("items submitted to the information store") as "on-demand" scan requests. Page 3 shows on-access scan requests being placed within "chunks" of on-demand scan requests.

A pool of threads distributing the on-demand anti-virus scan requests and the on-access scan requests from the request queue to the virus checkers, each anti-virus scan request on the virus scan request queue being serviced by a respective on of the threads in the pool of threads *("This queue is now serviced by a series of threads (the default number of threads is : 2* number of processors + one), with high-priority items always taking precedence." pg. 3)("Each messaging Database receives on thread to conduct the background scanning process" pg. 4)*

McAfee teaches the method of claim 12, which includes inhibiting the placement

of at least one of the chunks onto the virus scan request queue until completion of anti-

virus scanning for the anti-virus scan requests in a prior one of the chunks *("if a user*

accesses an item, it attains a high priority and jumps to the front of the queue" pg. 3 of

McAfee)("The priority of the items is dynamically upgraded to high priority if a client attempts to

access the item while the item is in the low-priority queue. A maximum of 30 items can exist at

one time in the low-priority queue, which is determined on a first in, first out basis" pg 4 of

McAfee) The Examiner interprets the maximum of 30 as inhibiting the placement of a chunk

until a prior one is completed.

McAfee also teaches wherein said processor is programmed for grouping the on-

demand anti-virus scan requests into chunks, each of the chunks including multiple

ones of the on-demand anti-virus scan requests into chunks. *(See page 3 of McAfee,*

shows "chunks" of on-demand requests in the global scanning queue)

Regarding Claim 14, 26

McAfee teaches the method of claim 12, wherein the on-demand anti-virus scan

requests are produced in response to a system administrator requesting a scan of files

within a specified file system *(See pg. 4, API 2.0 Proactive scanning, API 2.0 Background*

scanning, also Groupshield is intended for system administrators)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 12, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Smithson in view of McAfee.

Regarding Claims 7, 12, 24

Smithson teaches the method of claim 1, but does not explicitly teach wherein the on-

access anti-virus scan requests are given priority over the on-demand anti-virus scan

requests by inhibiting the placement of on-demand anti-virus scan requests onto the

virus scan request queue when the number of anti-virus scan requests reaches a

threshold, and not inhibiting the placement of on-access anti-virus scan requests on the

virus scan request queue when the number of requests reaches the threshold

McAfee teaches wherein the on-access anti-virus scan requests are given priority

over the on-demand anti-virus scan requests by inhibiting the placement of on-demand

anti-virus scan requests onto the virus scan request queue when the number of anti-

virus scan requests reaches a threshold, and not inhibiting the placement of on-access

anti-virus scan requests on the virus scan request queue when the number of requests

reaches the threshold *("if a user accesses an item, it attains a high priority and jumps to the*

front of the queue" pg. 3 of McAfee)("The priority of the items is dynamically upgraded to high

priority if a client attempts to access the item while the item is in the low-priority queue. A

maximum of 30 items can exist at one time in the low-priority queue, which is determined on a

first in, first out basis" pg 4 of McAfee) McAfee teaches a first in, first out basis, which

anticipates "inhibiting the placement of at least on of the chunks onto the virus scan request

queue until completion of anti-virus scan requests in a prior one of the chunks.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Smithson to limit on-demand scan requests and not inhibit on-

access requests.

The motivation to not limit on-access requests is because they are high-priority

and the on-demand requests are limited because they are lower-priority.

Claims 30, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McAfee in view of Edwards (7188367).

Regarding Claims 30, 33

McAfee teaches the claims 12, 14. McAfee does not explicitly teach wherein the chunks

have a size equal to a certain number of on-demand anti-virus scan requests, and the

threshold is about one-half of the size.

Edwards (7188367) teaches placing scan requests in a priority queue based upon "optimal virus scanner throughput" (See Column 8 lines 5-21). Edwards also teaches a threshold (Column 5, lines 65-67, Column 6, lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McAfee with the method of selectively placing scan requests in a queue as taught by Edwards.

The motivation is for "optimal virus scanner throughput."

Edwards does not explicitly teach wherein the threshold is "about one-half." Edwards teaches three-fourths.

However it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the threshold to about one-half.

The motivation is for a design choice.

Allowable Subject Matter

Claims 29, 31-32, 34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to HARRIS C. WANG whose telephone number is

(571)270-1462. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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